

السلم المنورق في فن المنطق

لعبد الرحمن الأخضرى

THE SPLENDID STAIRWAY
ON
THE ART OF LOGIC

By Sheikh Abdurrahman al-Akhdariy

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

1- الْحَمْدُ لِلَّهِ الَّذِي قَدْ أَخْرَجَنَا

نَتَائِجَ الْفِكْرِ لِأَرْبَابِ الْحِجَا

(1) All Praise be to Allah, Who has brought forth the conclusions of Thought for the Masters of the Mind

2- وَحَطَّ عَنْهُمْ مِنْ سَمَاءِ الْعَقْلِ

كُلَّ حِجَابٍ مِنْ سَحَابِ الْجَهْلِ

(2) And Who removed from them – from the sky of the Intellect – every barrier from the clouds of Ignorance

3- حَتَّى بَدَتْ لَهُمْ شُمُوسُ الْمَعْرِفَةِ

رَأَوْا مُخَدَّرَاتِهَا مُنْكَشِفَةً

(3) Until the suns of knowledge became manifest to them (and) they saw the their sheltered and secluded damsels exposed.

4- نَحْمَدُهُ جَلَّ عَلَى الْإِنْعَامِ

بِنِعْمَةِ الْإِيمَانِ وَالْإِسْلَامِ

(4) We praise Him – Magnificent is He – for bestowing the bounty of *iman* and *islam*

5- مَنْ خَصَّنَا بِخَيْرٍ مَنْ قَدْ أَرْسَلَا

وَحَيْرٍ مَنْ حَازَ الْمَقَامَاتِ الْعُلَا

- (5) (And) Who favoured us with the best of those sent (as emissaries) and the finest of those who traversed the loftiest stations –

6- مُحَمَّدٍ سَيِّدِ كُلِّ مُقْتَفَى

الْعَرَبِيِّ الْهَاشِمِيِّ الْمِصْطَفَى

- (6) Muhammad, the master of every pursued leader, the chosen Hashimite Arab –

7- صَلَّى عَلَيْهِ اللَّهُ مَا دَامَ الْحِجَا

يُخَوِّضُ مِنْ بَحْرِ الْمَعَانِي لُجْجَا

- (7) May Allah shower His Blessings upon him for as long as the mind continues to plunge and penetrate into the depths of the sea of meanings,

8- وَالْهَدَى وَصَحْبِهِ ذَوِي الْهَدَى

مَنْ شُبِّهُوا بِأَنْجُمٍ فِي الْإِهْتِدَا

9- وَبَعْدُ فَالْمِنْطِقُ لِلْجَنَانِ

نَسَبَتْهُ كَالنَّحْوِ لِلِّسَانِ

10- فَيَعَصِمُ الْأَفْكَارَ عَنْ غَيِّ الْخَطَا

وَعَنْ دَقِيقِ الْفَهْمِ يَكْشِفُ الْغَطَا

11- فَهَاكَ مِنْ أُصُولِهِ قَوَاعِدَا

تَجْمَعُ مِنْ فُنُونِهِ فَوَائِدَا

12- سَمَّيْتُهُ بِالسُّلَمِ الْمَنُورِقِ

يُرْقَى بِهِ سَمَاءُ عِلْمِ الْمِنْطِقِ

13- وَاللَّهُ أَرْجُو أَنْ يَكُونَ خَالِصَا

لِوَجْهِهِ الْكَرِيمِ لَيْسَ قَالِصَا

14- وَأَنْ يَكُونَ نَافِعَا لِلْمُبْتَدِي

بِهِ إِلَى الْمَطَوَّلَاتِ يَهْتَدِي

- (8) And upon his family and companions – those endowed with guidance and who are likened to the stars in giving guidance and direction.
- (9) Thereafter: Logic, its relation to the mind is like Grammar is to the tongue,
- (10) For it safeguards thoughts from the misguidance of error and lifts the covering from subtle comprehension.
- (11) So (here), take – from its principles – rules that incorporate benefits from its (various) sections.
- (12) I entitle it “the Splendid Staircase” with which the sky of the science of Logic can be ascended.
- (13) In Allah do I put my hope that it be sincerely and purely for His Holy Countenance, not falling short therein
- (14) And that it be beneficial to the novice (and thus) be guided thereby to more elaborate and exhaustive works (on Logic).

فَصَلِّ فِي جَوَازِ الْإِسْتِغَالِ بِهِ

15- وَالْخُلْفُ فِي جَوَازِ الْإِسْتِغَالِ

بِهِ عَلَى ثَلَاثَةِ أَقْوَالٍ

16- فَأَبْنُ الصَّلَاحِ وَالنَّوَاوِي حَرَّمَ

وَقَالَ قَوْمٌ يَنْبَغِي أَنْ يُعْلَمَ

17- وَالْقَوْلُ الْمَشْهُورُ الصَّحِيحُ

جَوَازُهُ لِكَامِلِ الْقَرِيحَةِ

18- مُمَارِسِ السُّنَّةِ وَالكِتَابِ

لِيَهْتَدِيَ بِهِ إِلَى الصَّوَابِ

فَصَلِّ فِي أَنْوَاعِ الْعِلْمِ الْحَادِثِ

19- إِدْرَاكَ مُفْرَدٍ تَصَوُّرًا عِلْمٌ

وَدَرْكَ نِسْبَةٍ بِتَصْدِيقٍ وَسِمٍ

20- وَقَدَّمَ الْأَوَّلَ عِنْدَ الْوَضْعِ

لِأَنَّهُ مُقَدَّمٌ بِالطَّبْعِ

21- وَالنَّظَرِي مَا أَحْتَاجُ لِلتَّأَمُّلِ

وَعَكْسُهُ هُوَ الضَّرُورِيُّ الْجَلِيُّ

Section: On the Permissibility of Its Use

- (15) The disagreement on the permissibility of its use amounts to three views:
- (16) Ibn al-Salah and al-Nawawi make (it) unlawful while (another) party maintain that it ought to be known.
- (17) However, the popular and correct view is that it is permissible for the one who possesses complete intellectual astuteness
- (18) (And) who follows the (Prophetic) Way and the Book (of Allah) in order that he be guided to what is right.

Section: On the Kinds of Temporal Knowledge

- (19) The conception of an individual object is known as *tasaawwur* (concept) and the conception of a relation (between two individual objects) is known as *tasdiq* (judgement).
- (20) Give precedence to the first (over the second) during conventional usage because it takes precedence (over *tasdiq*) by nature.
- (21) Acquired (knowledge) is that which requires reflection, and its opposite is knowledge that is necessary and self-evident.

22- وَمَا بِهِ إِلَى تَصَوُّرٍ وَصِلَ

يُدْعَى بِقَوْلٍ شَارِحٍ فَلْتَبْتِهَلْ

23- وَمَا لِتَصْدِيقٍ بِهِ تُوصِّلَا

بِحُجَّةٍ يُعْرِفُ عِنْدَ الْعُقَلَا

فَصْلٌ فِي أَنْوَاعِ الدَّلَالَةِ الْوَضْعِيَّةِ

24- دَلَالَةُ اللَّفْظِ عَلَى مَا وَافَقَهُ

يَدْعُونَهَا دَلَالَةً الْمِطَابَقَةِ

25- وَجُزْئِهِ تَضَمُّنًا وَمَا لَزِمَ

فَهُوَ التَّزَامُ إِنَّ بِعَقْلِ التُّزَمِ

فَصْلٌ فِي مَبَاحِثِ الْأَلْفَاظِ

26- مُسْتَعْمَلُ الْأَلْفَاظِ حَيْثُ يُوجَدُ

إِمَّا مُرَكَّبٌ وَإِمَّا مُفْرَدٌ

27- فَأَوَّلُ مَا دَلَّ جُزْؤُهُ عَلَى

جُزْءٍ مَعْنَاهُ بِعَكْسِ مَا تَلَا

28- وَهُوَ عَلَى قِسْمَيْنِ أَغْنِي الْمَفْرَدَا

كُلِّيٌّ أَوْ جُزْئِيٌّ حَيْثُ وُجِدَا

- (22) And that by way of which the *tasaawwur* is achieved is called *qaul sharih* (defining expression), so be diligent (in your request)
- (23) And that by way of which the *tasdiq* is reached is known as *hujjah* (argument) according to the Logicians.

Section: On the Types of Conventional Signification

- (24) A word's signification of a meaning with which it is congruent, they call: "*dalalah al-mutabaqah*" (Signification of Congruity)
- (25) And (the word's signification) of a part of it (they call) *tadammun*" (Signification of Inclusion), and that which is necessarily implied (by its meaning) is *iltizam* (Signification of Necessary Implication) if the necessary implication is conceived in the mind.

Section: On the Investigation of Linguistic Forms

- (26) Linguistic forms that are in conventional use – wherever they exist – are either *murakkab* (compound) or *mufrad* (simple).
- (27) The first is that whose part signifies part of its (total) meaning – the opposite of what follows it (i.e. the opposite of the *mufrad*)
- (28) And it is of two types – I mean the *mufrad: kulliy* (universal) and *juẓ'iy* (particular) – wherever it is to be found.

29- فَمُفْهِمُ اشْتِرَاكِ الْكُلِّيِّ

كَأَسَدٍ وَعَكْسُهُ الْجُزْئِيُّ

30- وَأَوَّلًا لِلذَّاتِ إِنْ فِيهَا انْدَرَجَ

فَانْسَبُهُ أَوْ لِعَارِضٍ إِذَا خَرَجَ

31- وَالْكُلِّيَّاتُ خَمْسَةٌ دُونَ انْتِقَاصِ

جِنْسٍ وَفَصْلٍ عَرَضٍ نَوْعٍ وَخَاصٍ

32- وَأَوَّلُ ثَلَاثَةٍ بِلاَ شَطَطٍ

جِنْسٌ قَرِيبٌ أَوْ بَعِيدٌ أَوْ وَسْطٌ

فَصْلٌ فِي نِسْبَةِ الْأَلْفَاظِ لِلْمَعَانِي

33- وَنِسْبَةُ الْأَلْفَاظِ لِلْمَعَانِي

خَمْسَةٌ أَقْسَامٍ بِلاَ نُقْصَانٍ

34- تَوَاطُؤٌ تَشَاكُكٌ تَخَالُفٌ

وَالِاشْتِرَاكُ عَكْسُهُ التَّرَادُفُ

35- وَاللَّفْظُ إِمَّا طَلَبٌ أَوْ خَبَرٌ

وَأَوَّلُ ثَلَاثَةٍ سَتُذَكَّرُ

- (29) That which signifies membership (to a class) is the *kulliy* (universal), and its opposite is the *juẓ'iy* (particular).
- (30) Attribute the first (of these) to the essence (*dhat*) – if it incorporated under it – or (attribute it) to an accident ('arid) – if it falls outside (of the essence).
- (31) The *kulliyat* (universals) are five – no less: *jins* (genus), *fasl* (*differentia* / specific difference/differentiating or defining property), 'arad (*accidens* / accident), *nau'* (species) and *khassah* (*proprium* / property)
- (32) The first (i.e. the *jins*) is of three types – no more: *jins qarib* (low/near genus), *ba'id* (high/distant) and *wasat* (intermediate).

Section: On the Relation of the Linguistic Forms to their Meanings

- (33) The relation of the linguistic forms to the meanings is of five types – no less.
- (34) *Tawatu'* (congruency/concordance), *tashakuk* (difference in degree), *takhaluf* (disjunction/mutual exclusion) and its opposite is *taraduf* (synonymy).
- (35) The (linguistic) form is either a request or declarative statement; the first is three (categories) that will (soon) be mentioned.

36- أَمْرٌ مَعَ اسْتِعْلَا وَعَكْسُهُ دُعَا

وَفِي التَّسَاوِي فَالْتِمَاسٌ وَقَعَا

فَصْلٌ فِي بَيَانِ الْكُلِّ وَالْكُلِّيَّةِ وَالْجُزْءِ وَالْجُزْئِيَّةِ

37- الْكُلُّ حُكْمُنَا عَلَى الْمَجْمُوعِ

كَكُلِّ ذَاكَ لَيْسَ ذَا وَقُوعِ

38- وَحَيْثُمَا لِكُلِّ فَرْدٍ حُكْمًا

فَإِنَّهُ كُُلِّيَّةٌ قَدْ عَلِمَا

39- وَالْحُكْمُ لِلْبَعْضِ هُوَ الْجُزْئِيَّةُ

وَالْجُزْءُ مَعْرِفَتُهُ جَلِيَّةُ

فَصْلٌ فِي الْمَعْرِفَاتِ

40- مُعَرَّفٌ عَلَى ثَلَاثَةِ قُسَمٍ

حَدٌّ وَرَسْمِيٌّ وَلَفْظِيٌّ عِلْمٌ

41- فَالْحَدُّ بِالْجِنْسِ وَفَصْلٌ وَقَعَا

وَالرَّسْمُ بِالْجِنْسِ وَخَاصَّةٍ مَعَا

42- وَنَاقِصُ الْحَدِّ بِفَصْلٍ أَوْ مَعَا

جِنْسٍ بَعِيدٍ لَا قَرِيبٍ وَقَعَا

(36) *Amr* (command) together with exaltation (of the one requesting) and its opposite is *du'a'* (supplication/invocation) and *iltimas* (seeking amongst equals) occurs in the case of equality (of status).

**Section: On the Exposition of the *Kull* and
Kulliyyah
and the *Juz'* and *Juz'iyyah***

(37) The *kull* (whole) is when we pass a judgment on a total (number of objects), like: “All (*Kull*) of that did not happen”.

(38) Wherever a judgment is passed on every member/individual (of a class) then it is known as *kulliyyah* (universality).

(39) Passing a judgment on some (members) is *ju'iyyah* (particularity) and knowledge of the *juz'* (part) is evident.

Section: on the *Mu'arrifat* (Defining Expressions)

(40) The *mu'arrif* (defining expression) is divided into three (types): *hadd* (real definition), *rasm* and *lafthiy* (definition pertaining to using a word).

(41) The (perfect) *hadd* occurs with the *jins* and *fasl* and the (perfect) *rasm* with the *jins* and *khassah* together.

(42) The *hadd naqis* (imperfect) occurs with the *fasl* (only) or together with the *jins ba'id* not the *jins qarib*.

43- وَنَاقِصُ الرَّسْمِ بِخَاصَةٍ فَقَطْ

أَوْ مَعَ جَنْسٍ أَبْعَدِ قَدْ ارْتَبَطُ

44- وَمَا بِلَفْظِي لَدَيْهِمْ شَهْرًا

تَبْدِيلُ لَفْظٍ بِرَدِيفٍ أَشْهَرًا

45- وَشَرَطُ كُلِّ أَنْ يُرَى مُطَرَّدًا

مُنْعَكِسًا وَظَاهِرًا لَا أَبْعَدَا

46- وَلَا مُسَاوِيًا وَلَا تَجَوُّزًا

بِلَا قَرِينَةٍ بِهَا تُحَرِّزَا

47- وَلَا بِمَا يُدْرَى بِمَحْدُودٍ وَلَا

مُشْتَرَكٍ مِنَ الْقَرِينَةِ خَلَا

48- وَعِنْدَهُمْ مِنْ جُمْلَةِ الْمُرْدُودِ

أَنْ تَدْخُلَ الْأَحْكَامُ فِي الْحُدُودِ

49- وَلَا يَجُوزُ فِي الْحُدُودِ ذِكْرُ أَوْ

وَجَائِزٌ فِي الرَّسْمِ فَادِرٍ مَا رَوُوا

- (43) The *rasm naqis* (imperfect) (occurs) with the *khassah* only or together with the *jins ba'id* connected to (it).
- (44) What is popularly known to them as *lafthiy* is replacing a word (*lafth*) with a synonym more popular.
- (45) The condition of each (of the above defining expressions) is that it be exclusive, inclusive, evident, not more vague (than the object defined)
- (46) Nor equal, nor metaphorical without a contextual indicator whereby it is guarded (from what is not intended),
- (47) Nor (it be known) through that through which the object defined is known, nor by means of a homonym which is void of an indicator (indicating which of its multiple meanings is intended).
- (48) And according to them (i.e. the Logicians): of the sum of what is rejected (in Logic) is for judgments to enter and be included in the definitions,
- (49) Nor is it permissible in *hudud* (real definitions) to mention (or use the particle) "or" while (its use is) permissible in the *rasm*, so be familiar with what they have transmitted and reported (in this regard).

بَابُ الْقَضَايَا وَأَحْكَامِهَا

50- مَا احْتَمَلَ الصَّدَقَ لِدَايَةِ جَرَى

بَيْنَهُمْ قَضِيَّةٌ وَخَبَرًا

51- ثُمَّ الْقَضَايَا عِنْدَهُمْ قِسْمَانِ

شَرْطِيَّةٌ حَمَلِيَّةٌ وَالثَّانِي

52- كُلِّيَّةٌ شَخْصِيَّةٌ وَالْأَوَّلُ

إِمَّا مُسَوَّرٌ وَإِمَّا مُهْمَلٌ

53- وَالسُّورُ كُلُّهَا وَجُزْئِيًّا يُرَى

وَأَرْبَعُ أَقْسَامُهُ حَيْثُ جَرَى

54- إِمَّا بِكُلٍّ أَوْ بِبَعْضٍ أَوْ بِلَا

شَيْءٍ وَلَيْسَ بَعْضُ أَوْ شِبْهُ جَلَاءَ

55- وَكُلُّهَا مُوجِبَةٌ وَسَالِبَةٌ

فَهِيَ إِذْنٌ إِلَى الثَّمَانِ آيَةٍ

56- وَالْأَوَّلُ الْمَوْضُوعُ فِي الْحَمَلِيَّةِ

وَالْآخِرُ الْمَحْمُولُ بِالسَّوِيَّةِ

- (50) That which implies truth in and of itself according to them (i.e. the Logicians) goes with the name of proposition or declarative statement / assertion.
- (51) Thereafter, the propositions according to them are two categories: conditional (or hypothetical) and categorical. The second (which is the categorical)
- (52) Is either universal or particular. The first is either quantified or free (from quantification)
- (53) The quantifier is either regarded as a universal term or particular term, thus making its categories four wherever it occurs.
- (54) Either with the term "All", or "Some" or "No thing" or "Some of ...is not" or that which appears with a synonymous meaning.
- (55) All of them are either affirmative or negative, thus going back to eight types (in all).
- (56) The first (term) in the categorical proposition is subject term and second is the predicate term ???

57- وَإِنْ عَلَى التَّغْلِيْقِ فِيهَا قَدْ حُكِمَ

فَإِنَّهَا شَرْطِيَّةٌ وَتَنْقَسِمُ

58- أَيْضًا إِلَى شَرْطِيَّةٍ مُتَّصِلَةٍ

وَمِثْلِهَا شَرْطِيَّةٍ مُنْفَصِلَةٍ

59- جُزْأَهُمَا مُقَدَّمٌ وَتَالِي

أَمَّا بَيَانُ ذَاتِ الْإِتِّصَالِ

60- مَا أُوجِبَتْ تَلَاُزِمُ الْجُزْأَيْنِ

وَذَاتُ الْإِنْفِصَالِ دُونَ مَيْنِ

61- مَا أُوجِبَتْ تَنَافُرًا بَيْنَهُمَا

أَقْسَامُهَا ثَلَاثَةٌ فَلْتُعْلَمَا

62- مَانِعٌ جَمْعٍ أَوْ خُلُوءٌ أَوْ هُمَا

وَهُوَ الْحَقِيقِيُّ الْأَخْصُ فَاعْلَمَا

فَصْلٌ فِي التَّنَاقُضِ

63- تَنَاقُضٌ خُلْفُ الْقَضِيَّتَيْنِ فِي

كَيْفٍ وَصِدْقٍ وَاحِدٍ أَمْرٌ قُفِي

- (57) If a proposition is to be judged in terms of conditionality (i.e. a conditional nexus) in it, then it is conditional (or hypothetical), and is divided:
- (58) Also into conditional proper and likewise disjunctive (or alternative).
- (59) Their constituent parts (i.e. the constituent parts of the conditional and disjunctive) are the antecedent and the consequent. As for the exposition of the conditional proper, it is
- (60) That which necessitates a (logical) entailment between its two constituent parts, and the disjunctive (proposition) without a doubt is
- (61) That which necessitates an incompatibility / incongruity between its constituent parts, and its categories are three, and let them be known
- (62) (a) that which prevents mutual inclusion (of its disjuncts), or mutual exclusion, or both (i.e. both mutual inclusion and mutual exclusion), and this is the true (disjunctive proposition) and more specific (than the other two), so know that.

Section: on Contradiction or Contradictories

- (63) Contradiction is the difference of two propositions in terms of quality (i.e. being affirmative or negative), and the truth of one (of the two propositions) is a matter that must be followed (in this case).

64- فَإِنْ تَكُنْ شَخْصِيَّةً أَوْ مُهْمَلَةً

فَنَقُضُهَا بِالْكَيفِ أَنْ تُبَدِّلَهُ

65- وَإِنْ تَكُنْ مُحْصُورَةً بِالسُّورِ

فَانْقُضْ بِضِدِّ سُورِهَا الْمَذْكُورِ

66- فَإِنْ تَكُنْ مُوجِبَةً كُلِّيَّةً

نَقِیْضُهَا سَالِبَةٌ جُزْئِيَّةٌ

67- وَإِنْ تَكُنْ سَالِبَةً كُلِّيَّةً

نَقِیْضُهَا مُوجِبَةٌ جُزْئِيَّةٌ

فَصَلِّ فِي الْعَكْسِ الْمُسْتَوِيِّ

68- الْعَكْسُ قَلْبُ جُزْأَيِ الْقَضِيَّةِ

مَعَ بَقَاءِ الصِّدْقِ وَالْكِيفِيَّةِ

69- وَالْكَمُّ إِلَّا الْمَوْجِبَ الْكُلِّيَّةَ

فَعَوَضُهَا الْمَوْجِبَةُ الْجُزْئِيَّةُ

70- وَالْعَكْسُ لَا زِمَّ لِغَيْرِ مَا وُجِدَ

بِهِ اجْتِمَاعُ الْحِسَّتَيْنِ فَاقْتَصِدْ

- (64) If the proposition is particular or free (from quantifiers), then its contradiction in terms of quality is merely to substitute it (i.e. the value for the quality of the proposition).
- (65) And if it is delineated by means of a quantifier, then effect contradiction by putting the opposite of the quantifier mentioned (in the original proposition).
- (66) And if it is universal affirmative, then its contradiction is particular negative.
- (67) And if it is universal negative, then its contradiction particular affirmative

Section: on Conversion

- (68) Conversion is inverting the constituent parts of the proposition while keeping constant the truth value (of the proposition) and the quality and
- (69) The quantity except in the case of the universal affirmative, for it becomes particular negative (instead).
- (70) Conversion is necessary in every proposition in which the two low values (of quantity and quality i.e. particular and negative) do not meet, so be economical.

71- وَمِثْلُهَا الْمُهْمَلَةُ السَّلْبِيَّةُ

لِأَنَّهَا فِي قُوَّةِ الْجُزْئِيَّةِ

72- وَالْعَكْسُ فِي مُرْتَبٍ بِالطَّبَعِ

وَلَيْسَ فِي مُرْتَبٍ بِالْوَضْعِ

بَابُ فِي الْقِيَاسِ

73- إِنَّ الْقِيَاسَ مِنْ قَضَايَا صُورًا

مُسْتَلَزِمًا بِالذَّاتِ قَوْلًا آخَرًا

74- ثُمَّ الْقِيَاسُ عِنْدَهُمْ قِسْمَانِ

فَمِنْهُ مَا يُدْعَى بِالِاقْتِرَانِ

75- وَهُوَ الَّذِي دَلَّ عَلَى النَّتِيجَةِ

بِقُوَّةٍ وَاخْتَصَّ بِالْحَمَلِيَّةِ

76- فَإِنْ ثُرِدَ تَرْكِيْبُهُ فَرَكَّبَا

مُقَدِّمَاتِهِ عَلَى مَا وَجَبَا

77- وَرَتَّبِ الْمَقْدِّمَاتِ وَانْظُرَا

صَحِيحَهَا مِنْ فَاسِدٍ مُخْتَبِرَا

- (71) Likewise is the case with the proposition that is free (from quantifiers) and is negative because it is equivalent in force to the particular.
- (72) Conversion occurs only in a proposition that evinces a natural order (of its terms) and not that which evinces a conventional order.

Chapter: on the Syllogism

- (73) The syllogism is that which is formed from a number (at least two) propositions (called "the premises") necessitating by itself another proposition (called "the conclusion").
- (74) Thereafter, the syllogism according to them (i.e. the logicians) is of two types: one of which is called "categorical"
- (75) And it is that which points to the conclusion by force (of its premises), and specific to categorical propositions.
- (76) If you wish to you wish to construct it i.e. the categorical syllogism) then construct its premises in the manner it should (be constructed according to the logicians).
- (77) So arrange the premises in order, and thereafter distinguish the true (premises) from the false by way of checking,

78- فَإِنَّ لَازِمَ الْمُقَدَّمَاتِ

بِحَسَبِ الْمُقَدَّمَاتِ آتٍ

79- وَمَا مِنْ الْمُقَدَّمَاتِ صُغْرَى

فَيَجِبُ انْدِرَاجُهَا فِي الْكُبْرَى

80- وَذَاتُ حَدٍّ أَصْغَرُ صُغْرَاهُمَا

وَذَاتُ حَدٍّ أَكْبَرُ كُبْرَاهُمَا

81- وَأَصْغَرُ فَذَاكَ ذُو انْدِرَاجٍ

وَوَسَطٌ يُلْغَى لَدَى الْإِنْتَاكِ

فَصْلٌ فِي الْأَشْكَالِ

82- الشَّكْلُ عِنْدَ هَؤُلَاءِ النَّاسِ

يُطْلَقُ عَنْ قَضِيَّتَيْ قِيَاسٍ

83- مِنْ غَيْرِ أَنْ تُعْتَبَرَ الْأَسْوَارُ

إِذَا ذَاكَ بِالضَّرْبِ لَهُ يُشَارُ

84- وَلِلْمُقَدَّمَاتِ أَشْكَالٌ فَقَطْ

أَرْبَعَةٌ بِحَسَبِ الْحَدِّ الْوَسَطِ

- (78) Because (the truth or falsity of) the conclusion that is entailed by and follows necessarily from the premises proceeds according the (the truth or falsity) of the premises.
- (79) That of the premises which is known as the minor (premise) must necessarily be such that it can be incorporated under the major (premise).
- (80) The premise that contains the minor term is the minor premise and the premise containing the major term is the major premise.
- (81) The minor term is that whose members are included (in the major term) and the middle term is that which is disregarded in the conclusion.

Section: on the Figures

- (82) The figure according to these people (i.e. the logicians) refers to the two propositions of the syllogism
- (83) Without considering the quantifiers, for that is referred to by the mood.
- (84) The premises only have four figures according to (the position of) the middle term.

85- حَمَلٌ بِصُغْرَى وَضَعُهُ بِكُبْرَى

يُدْعَى بِشَكْلِ أَوَّلٍ وَيُذْرَى

86- وَحَمْلُهُ فِي الْكُلِّ ثَانِيًا عُرِفَ

وَوَضَعُهُ فِي الْكُلِّ ثَالِثًا أُلِفَ

87- وَرَابِعُ الْأَشْكَالِ عَكْسُ الْأَوَّلِ

وَهِيَ عَلَى التَّرْتِيبِ فِي التَّكْمُلِ

88- فَحَيْثُ عَنْ هَذَا النَّظَامِ يُعَدَّلُ

فَفَاسِدُ النَّظَامِ أَمَّا الْأَوَّلُ

89- فَشَرْطُهُ الْإِيجَابُ فِي صُغْرَاهُ

وَأَنْ تُرَى كُلِّيَّةٌ كُبْرَاهُ

90- وَالثَّانِ أَنْ يَخْتَلِفَا فِي الْكَيْفِ مَعَ

كُلِّيَّةِ الْكُبْرَى لَهُ شَرْطُ وَقَعِ

91- وَالثَّلَاثُ الْإِيجَابُ فِي صُغْرَاهُمَا

وَأَنْ تُرَى كُلِّيَّةٌ إِحْدَاهُمَا

92- وَرَابِعُ عَدَمِ جَمْعِ الْخِسْتَيْنِ

إِلَّا بِصُورَةٍ فِيهَا يَسْتَبِينُ

- (85) (Being the) predicate in the minor premise and subject in the major premise is called and known as the First Figure.
- (86) Being the predicate in both (premises) is known as the Second (Figure), and being the subject in both (premises) is known as the Third (Figure).
- (87) The Fourth of the (four) Figures is the opposite of the First (Figure), and they are in order of perfection.
- (88) Whenever it deviates from this sequence, then that is an invalid sequence. As for the First
- (89) Its condition is for its minor to be affirmative and its major universal.
- (90) The Second has as its condition that the two premises differ as to quality whilst the major premise is universal.
- (91) The Third (stipulates that) the minor of the two premises be affirmative whilst one of them is to be regarded as universal.
- (92) The Fourth (stipulates) the absence of having the two low values (of quantity and quality) together except in one form (or mood) in which case it is evident.

93- صُغْرَاهُمَا مُوجِبَةٌ جُزْئِيَّةٌ

كُبْرَاهُمَا سَالِبَةٌ كُلِّيَّةٌ

94- فَمُنْتَجَجٌ لِأَوَّلٍ أَرْبَعَةٌ

كَالثَّانِ ثُمَّ ثَالِثٌ فَسِتَّةٌ

95- وَرَابِعٌ بِخَمْسَةٍ قَدْ أَنْتَجَا

وَعَبْرٌ مَا ذَكَرْتُهُ لَنْ يُنْتَجَا

96- وَتَتَّبَعُ النَّتِيجَةُ الْأَخْسَرُ مِنْ

تِلْكَ الْمَقْدَمَاتِ هَكَذَا زَكْنَ

97- وَهَذِهِ الْأَشْكَالُ بِالْحَمَلِيِّ

مُخْتَصَّةٌ وَلَيْسَ بِالشَّرْطِيِّ

98- وَالْحَذْفُ فِي بَعْضِ الْمَقْدَمَاتِ

أَوْ النَّتِيجَةِ لِعِلْمِ آتٍ

99- وَتَنْتَهِي إِلَى ضَرُورَةٍ لِمَا

مِنْ دَوْرٍ أَوْ تَسْلُسُلٍ قَدْ لَزِمَا

- (93) The negation of the other (premise) without the converse holding true. And when it is a case of a syllogism whose premises prevent mutually exclusion, then it is the converse of that (i.e. the previous one). The minor of the two premises is particular affirmative and the major of the two premises is universal negative.
- (94) Thus, the first figure yields four (valid moods / forms), like the second, and the third (figure) six (valid moods / forms),
- (95) And the fourth (figure) yields five (valid moods / forms), and what I did not mention does not yield anything.
- (96) Furthermore, the conclusion follows of these premises that which has the lowest value (i.e. the particular or negative). This is how it is determined.
- (97) Moreover, these figures are specific to the categorical syllogism and not the hypothetical.
- (98) Dropping one of the premises or the conclusion happens due to knowledge (of the item dropped).
- (99) And the conclusion tends to being self-evident or axiomatic due to what must necessarily follow in terms of circularity or infinite regress.

فَصْلٌ فِي الْقِيَاسِ الْإِسْتِثْنَائِيِّ

100- وَمِنْهُ مَا يُدْعَى بِالِاسْتِثْنَائِيِّ

يُعْرَفُ بِالشَّرْطِيِّ بِلَا امْتِرَاءٍ

101- وَهُوَ الَّذِي دَلَّ عَلَى النَّتِيجَةِ

أَوْ ضِدَّهَا بِالْفِعْلِ لَا بِالْقُوَّةِ

102- فَإِنْ يَكُ الشَّرْطِيُّ ذَا اتِّصَالٍ

أَنْتَجَ وَضْعُ ذَاكَ وَضْعَ التَّالِي

103- وَرَفْعُ تَالٍ رَفْعُ أَوَّلٍ وَلَا

يَلْزَمُ فِي عَكْسِهِمَا لِمَا انْجَلَى

104- وَإِنْ يَكُنْ مُنْفَصِلًا فَوَضْعُ ذَا

يُنْتَجِ رَفْعُ ذَاكَ وَالْعَكْسُ كَذَا

105- وَذَاكَ فِي الْأَخَصِّ ثُمَّ إِنْ يَكُنْ

مَانِعَ جَمْعٍ فَبِوَضْعِ ذَا زُكْنٍ

106- رَفْعٌ لِذَاكَ دُونَ عَكْسٍ وَإِذَا

مَانِعَ رَفْعٍ كَانَ فَهُوَ عَكْسُ ذَا

Section: on the Hypothetical Syllogism

- (100) And of it (i.e. the Syllogism) there is a type called hypothetical and it is also known by (the name of) conditional (syllogism) without a doubt.
- (101) And it is that which points to the conclusion or its opposite in actuality (and form) (*in actu*) and not in potentiality (and meaning) (*in virtu*) (i.e. its conclusion is implied in its premises unlike the categorical syllogism).
- (102) If the hypothetical syllogism is conjunctive (*modus pollens*), then the affirmation / positing / declaration of that (i.e. the antecedent) produces the affirmation / positing / declaration of the consequent,
- (103) And the negation of the consequent (produces) the negation of the antecedent, but that does not follow necessarily in the case of their conversion due to it being evident (with the logicians).
- (104) And if it is disjunctive (*modus tollens*) then the affirmation of the one produces the negation of the other, and their conversion also holds true.
- (105) That is so in the case of what is more specific (i.e. the syllogism whose premises prevent both mutual inclusion and mutual exclusion). Thereafter, should it be a case of a syllogism whose premises prevent mutual inclusion, then through affirming the one (premise) becomes known
- (106) The negation of the other without the converse (being the case), and if it is one whose premises

prevent mutual negation then it is the opposite thereof (i.e. of the previous one)

فَصْلٌ فِي لَوَاحِقِ الْقِيَاسِ

107- وَمِنْهُ مَا يَدْعُوهُ مُرَكَّبًا

لِكَوْنِهِ مِنْ حُجَجٍ قَدْ رُكِّبَا

108- فَرَكَّبْنَاهُ إِنْ تُرِدْ أَنْ تَعْلَمَهُ

وَأَقْلَبْ نَتِيجَةً بِهِ مُقَدِّمَهُ

109- يَلْزَمُ مِنْ تَرْكِيبِهَا بِأُخْرَى

نَتِيجَةً إِلَى هَلَمَّ جَرًّا

110- مُتَّصِلَ النَّتَائِجِ الَّذِي حَوَى

يَكُونُ أَوْ مَفْصُولَهَا كُلُّ سَوَا

111- وَإِنْ بِجُزْئِيٍّ عَلَى كُلِّيٍّ اسْتُدِلَّ

فَذَا بِالِاسْتِقْرَاءِ عِنْدَهُمْ عَقِلَ

112- وَعَكْسُهُ يُدْعَى الْقِيَاسَ الْمُنْطَقِي

وَهُوَ الَّذِي قَدَّمْتُهُ فَحَقَّقِ

113- وَحَيْثُ جُزْئِيٌّ عَلَى جُزْئِيٍّ حُمِلَ

لِجَامِعٍ فَذَاكَ تَمْثِيلٌ جُعِلَ

114- وَلَا يُفِيدُ الْقَطْعَ بِالِدَّلِيلِ

قِيَاسُ الْإِسْتِقْرَاءِ وَالتَّمْثِيلِ

Section on the Supplements to the Syllogism

- (107) Of the Syllogism there is a type which they call compound (syllogism) because it is composed of a (number) of (syllogistic) arguments / proofs
- (108) So compose it if you wish to know it, and convert a conclusion drawn from it into a premise,
- (109) Whose composition with another (premise) yields / entails a conclusion and so on up to where you want to go (with it).
- (110) It (i.e. the compound syllogism) is either connected to the conclusions which is that which contains (it conclusions) or is severed from them (by not containing the conclusions). Both (though) are the same.
- (111) And if a particular is used to deduce / demonstrate a universal, that is known by them as al-Istiqra' (Induction).
- (112) Its opposite is called Logical *Qiyas* (i.e. Syllogism, as opposed to Legal *Qiyas* which is analogy), and it that (category) which I presented before, so affirm (them and the difference between them).
- (113) And when one particular is construed according to another particular with respect to a common (cause), then this is an analogy / analogous reasoning that is taken (as a source of evidence).
- (114) And syllogistic reasoning / demonstration by way of Induction and Analogy does not yield

definitive knowledge through (the conclusion drawn from such) evidence.

فَصْلٌ فِي أَقْسَامِ الْحُجَّةِ

115- وَحُجَّةٌ نَقْلِيَّةٌ عَقْلِيَّةٌ

أَقْسَامُ هَذِي خَمْسَةٌ جَلِيَّةٌ

116- خَطَابَةٌ شِعْرٌ وَبُرْهَانٌ جَدَلٌ

وَخَامِسٌ سَفْسَطَةٌ نِلَتْ الْأَمْلَ

117- أَجْلُّهَا الْبُرْهَانُ مَا أَلْفَ مِنْ

مُقَدِّمَاتٍ بِالْيَقِينِ تَقْتَرِنُ

118- مِنْ أَوَّلِيَّاتٍ مُشَاهَدَاتٍ

مُجَرَّبَاتٍ مُتَوَاتِرَاتٍ

119- وَحَدَسِيَّاتٍ وَمَحْسُوسَاتٍ

فَتِلْكَ جُمْلَةُ الْيَقِينِيَّاتِ

120- وَفِي دَلَالَةِ الْمُقَدِّمَاتِ

عَلَى النَّتِيجَةِ خِلَافٌ آتٍ

121- عَقْلِيٌّ أَوْ عَادِيٌّ أَوْ تَوَلَّدُ

أَوْ وَاجِبٌ وَالْأَوَّلُ الْمُؤَيَّدُ

Section on the Classes of Argument / Demonstration

- (115) Argument / Demonstration is either transmission-based (i.e. transmissional) or reason-based (i.e. rational). The classes of this (latter) are five that are evident.
- (116) Rhetorical, Poetical, Demonstrative, Dialectical and the fifth is Sophistical, may you reach your hope.
- (117) The most elevated of these is the Demonstrative, which is that which composed of premises accompanied by certainty (i.e. certain premises),
- (118) (which are either) first principles / axioms, feelings, experimentally / empirically verifiable observations, unanimously transmitted reports,
- (119) Intuitions, and sense perceptions. Those are the total number of certain premises.
- (120) And in the way the premises demonstrate the conclusion there occurs the following difference (of opinion):
- (121) (That it is) rational, habitual, (rationally) generated, or (rationally) necessary. The first is the one that is supported.

خَاتِمَةٌ

122- وَخَطَأُ الْبُرْهَانِ حَيْثُ وُجِدَا

فِي مَادَةٍ أَوْ صُورَةٍ فَاَلْمِيتَدَا

123- فِي اللَّفْظِ كَاشْتِرَاكِ أَوْ كَجَعَلِ ذَا

تَبَائِنٍ مِثْلَ الرَّدِيفِ مَأْخَذَا

124- وَفِي الْمَعَانِي لِالْتِبَاسِ الْكَاذِبَةِ

بِذَاتِ صِدْقٍ فَافْهَمِ الْمِخَاطَبَةَ

125- كَمِثْلِ جَعَلِ الْعَرَضِيِّ كَالذَّاتِي

أَوْ نَاتِجِ إِحْدَى الْمَقْدَّمَاتِ

126- وَالْحُكْمِ لِلْجِنْسِ بِحُكْمِ النَّوعِ

وَجَعَلِ كَالْقَطْعِيِّ غَيْرِ الْقَطْعِيِّ

127- وَالثَّانِ كَالْخُرُوجِ عَنْ أَشْكَالِهِ

وَتَرَكِ شَرْطِ النَّجْجِ مِنْ إِكْمَالِهِ

128- هَذَا تَمَامُ الْغَرَضِ الْمُقْصُودِ

مِنْ أُمَّهَاتِ الْمُنْطِقِ الْمَحْمُودِ

129- قَدْ انْتَهَى بِحَمْدِ رَبِّ الْفَلَقِ

مَا رُمْتُهُ مِنْ فَنِّ عِلْمِ الْمُنْطِقِ

130- نَظَمَهُ الْعَبْدُ الذَّلِيلُ الْمُفْتَقِرُ

لِرَحْمَةِ الْمَوْلَى الْعَظِيمِ الْمُقْتَدِرِ

131- الْأَخْضَرِيُّ عَابِدُ الرَّحْمَنِ

الْمُرْتَجِي مِنْ رَبِّهِ الْمَنَّانِ

132- مَغْفِرَةٌ تُحِيطُ بِالذُّنُوبِ

وَتَكْشِفُ الْغِطَاءَ عَنِ الْقُلُوبِ

133- وَأَنْ يُثَبِّنَا بِجَنَّةِ الْعُلَا

فَإِنَّهُ أَكْرَمُ مِنْ تَفَضُّلَا

134- وَكُنْ أَخِي لِلْمُبْتَدِي مُسَامِحَا

وَكُنْ لِإِصْلَاحِ الْفَسَادِ نَاصِحَا

135- وَأَصْلِحِ الْفَسَادَ بِالتَّأَمُّلِ

وَإِنْ بَدِيهَةً فَلَا تُبَدِّلِ

136- إِذْ قِيلَ كَمْ مُزَيِّفٍ صَحِيحَا

لِأَجْلِ كَوْنِ فَهْمِهِ قَبِيحَا

137- وَقُلْ لِمَنْ لَمْ يَنْتَصِفْ لِمَقْصِدِي

الْعُذْرُ حَقٌّ وَاجِبٌ لِلْمُبْتَدِي

138- وَلَبِنِي إِحْدَى وَعِشْرِينَ سَنَهُ

مَعْدِرَةٌ مَقْبُولَةٌ مُسْتَحْسَنَةٌ

139- لَا سِيَّامًا فِي عَاشِرِ الْقُرُونِ

ذِي الْجَهْلِ وَالْفَسَادِ وَالْفُتُونِ

140- وَكَانَ فِي أَوَائِلِ الْمَحَرَّمِ

تَأْلِيفُ هَذَا الرَّجَزِ الْمُنَظَّمِ

141- مِنْ سَنَةِ إِحْدَى وَأَرْبَعِينَ

مِنْ بَعْدِ تِسْعَةِ مِائَتَيْنِ

142- ثُمَّ الصَّلَاةُ وَالسَّلَامُ سَرْمَدًا

عَلَى رَسُولِ اللَّهِ خَيْرٍ مَنْ هَدَى

143- وَآلِهِ وَصَحْبِهِ الثَّقَاتِ

السَّالِكِينَ سُبُلَ النِّجَاةِ

144- مَا قَطَعَتْ شَمْسُ النَّهَارِ أَبْرُجًا

وَطَلَعَ الْبَدْرُ الْمَنِيرُ فِي الدُّجَى

Conclusion

- (122) The error in the demonstrative argument wherever it is found is (either) in the content or form. The first (i.e. the error relating to content) is
- (123) In the expression / locution like homonymy or like making that (i.e. a word) which has something distinct like its synonym with respect to how the latter is taken,
- (124) And in the meaning (of the expression) by way of confusing a false proposition with a true one, so understand the speech,
- (125) Like making the accidental essential or that which yields / produces one of the premises as the conclusion.
- (126) And like passing on the genus the same judgment that is passed on the species, and like making the non-definitive (or non-absolute) definitive (or absolute).
- (127) The second (i.e. the error relating to form) is like deviating from its figures (i.e. the figures of the syllogism), and leaving out a condition for producing the conclusion contributing to its completion (i.e. the completion of the errors relating to form).
- (128) This is the completion (and realization) of the intended aim as regards the Fundamental Principles of Logic of the type that is praiseworthy.
- (129) Indeed, that which I have set out to achieve from the Art of the Study of Logic has been completed with Praise of the Lord of Daybreak.

- (130) The humble servant who is need of the Mercy of the Great and Powerful Protector has composed it in verse form,
- (131) Al-Akhdari, Abidurrahman (i.e. Abdurrahman) who hopes from his Bountiful Lord
- (132) For forgiveness that will cover all the sins and remove the covering from over the hearts,
- (133) And to reward us with the Garden of the Highest (Chambers), for He is truly the Most Generous of those who are bountiful.
- (134) Be, O my brother, forbearing and tolerant towards a novice / beginner, and be one who gives advice when correcting a wrong.
- (135) Correct the wrong with due reflection (not being hasty), if (the appearance of a wrong) is self-evident, then do not effect any change,
- (136) Since it is said that how many a person falsifies something that is correct because his understanding is unbecoming.
- (137) Say to the one who shows no fairness in what I have set out (to do, which is the composition of this didactic poem): An excuse is a right that is obligatory for the beginner / novice.
- (138) And for a boys of twenty-one years (of age) there is an acceptable and good excuse,
- (139) Especially in the tenth century that is characterized by ignorance, corruption and trials and tribulations.
- (140) The composition of this rajaz versified poem was during the first days of al-Muharram,

- (141) Of the year forty-one after nine-hundred (i.e. 941 AH).
- (142) Thereafter, let the Blessings and Peace forever be on Allah's Messenger the best of those who guided,
- (143) And on his Family, Trusted Companions who have trodden the ways of Salvation,
- (144) For as long as the sun of the day cuts through towering constellations (i.e. the constellations of stars forming the zodiacal belt), and the radiant full-moon rises in the darkness (of the night).

والحمد لله رب العالمين
